

About Nusantara Architecture: a Matter of Either-or or Both-and toward Place for Better Living in the Humid Tropic¹

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'Space' and 'Better living' are continuing issues and discourse in architecture. It covers as large as philosophical to practical ones. We may find, for instance, issues in space as one of construction of mind in one extreme, and space as one of volume in certain magnitude at its other extreme. In terms of better living we may also find similar extremes. We may also find that since the times of modern era, space is practically considered as volume of certain magnitude, as is exemplified in a number of standards of areas needed for particular activity; while in terms of better living the focus is in comfort that should be provided in particular room. Unfortunately, we –the Indonesians-- hardly aware and realize that they are not only of western sources, but more importantly, of western mindset. Since they are beautifully and neatly concealed under one objectivity of mind and reason, science, most of us know and accept them as the objective and correct standards. The fact that the West (ie. Europe and North America) are region with four seasons climate system has unavoidably underlies the building of those standards and knowledge. Indonesia and other tropical areas of the world is not region in such a four seasons climate system; it is in a two seasons climate system. This two climate seasons is not simply a variant of climate system; it is of 'the other' climate system, as will be demonstrated in this paper. Hence, we may consider this paper as talking about space for better living' from the point of view of climate system.

The relation of man with climate is not limited to what climate has been utilized for living comfortably. This relation also deals with what the climate mean to man, and what attitude and respond does man take within that relationship. In regions where the climate has dry season and wet season that is not in its extreme, every season has been generously provide comfortable living to the people. Every season, both dry and wet season, hardly becomes a threat to the life of its people. This is what basically the tropic

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climate promises to its people. Should this region is enrich with its rainforest as one component of the region, this various greeneries (from low to high, from small to large flora) provide additional comfort. In the hottest time of the day, people can still enjoy the day by sheltering themselves under a big and shady tree; and the same action will also be taken once the rain downpours heavily.⁽¹⁾ Those hunter-and-gather people of tropic climate should be among the first who practice the function of big and shady tree with its shaded area as shelter. We may call this shaded area of the tree as the space where the people living in temporarily; yet, we must bear in mind that this space is not separated from the nature. The shaded area is one piece of nature transformed into a space for living in temporarily. Should there was practically single mark or sign attached to that area, e.g. a branch of tree struck to the ground, the people understood it as a place marker, not as space marker.

The man-made construction was supposedly due to the need to maintain fire. We know that air, earth, water and fire are basic elements of life. Among those four elements, it is only fire that strongly depends on people's effort to make and keep burning all the times; the other three elements are freely provided by nature. The windbreak should be the first construction that people of tropic climate built. A further development of this windbreak shows the construction of roof, the saddle-type roof, which is simply rest upon the ground. A volume of certain magnitude was created for the first time. Utilization of this volume shows that it was the place where people store their belonging and objects gathered for future use. Within this roof attic, the fire is kept at the floor (of wooden or bamboo floor), and its smoke and heat is utilized for two purposes: to lengthen the life of organic materials used as roof, and to keep the crops and food stuffs which are located above the fire. It was the woman who is responsible for the life of the fire, and, thus, quite understandable to find the woman spend their night sleep in this roof attic. It must be noted here that even though women is mainly manage the roof attic, the task of cooking was not held in this place, but was located outside the building. This particular structure was further developed into two basic types. The first is the structure where its roof rests on the ground (e.g. Wae Rebo – Flores, a structure of conical form); and the second was where the volume was rest on stilts (e.g. Tambi – Central Sulawesi, a structure of prismatic form). Now, even though the women and children were given a place for sleeping in the structure, this volume is storage, not a house for living in. the adult male were not allowed to spend the night within that structure. Another structure

which is simply a roof with platform structure is preserved for them. No single wall was constructed for this male place. Meanwhile, while the adult male was given a place within the structure, such as in Wae Rebo, they are located at first half of the floor only; the other half, where the fireplace was located was preserved for women and children. When people of the tropic had settled in one particular location, and thus an agrarian life style was practiced, the location for crops was moved to a structure especially built for it, the granary.⁽²⁾ Since this agrarian life demanding many people to be involved in, the rise of a large compound which contains many structures was one of understandably solution. This compound was now constituted a location for an extended family, mostly still within one family lineage. Again, two types of compound were known among the Nusantara people. The first type is extended structure, such as in Daya(q/k), Banjarmasin and Minangkabau, and named by Josef Prijotomo and Eko Prawoto as *binubuh* type. This type provides additional structure as an extension of the main structure at its sides. The other type is a structure that duplicates the main structure, yet comprising a single structure, such as Toraja, Madura and Sumba. This type is named *ginanda* type by Prijotomo and Prawoto.⁽³⁾ The location of duplicated structure is to the side of the main structure, and if necessary to the front of main structure. However, the production of such a compound does not limited to those agrarian people. Tha Daya(q/k) of Kalimantan are not mainly of agrarian people.

The structures that constitute one main feature of Nusantara Architecture must not be taken in isolation. The nature of Indonesia/Nusantara⁽⁴⁾ As region with tropic climate believe that their place for living in is the nature itself. The fact that the season does not entail a threat to the life of people has made the Nusantara people treat the structure as man-made big and shaded tree. The inner part of the structure is a particular volume of nature transformed in the metaphor of the foliage part of the tree. The platform under the roofed part of the structure is a metaphor of the shaded area of the tree. The terrace on the sides of the structure is also a metaphor of that shaded area of the tree. Now, while the inner part of the structure is for the storage (includes storing the body during the sleep), the platform and the terrace becomes the part where daytime activities in life is performed. This latter part, moreover, also considered as part of the open yard surrounding the structure.

Should the inner part is considered as space of the building, we must note that the people do not have any knowledge upon that space. They understand that part as a piece of nature, or as a part of nature. To them, this part is the place where they live in

and with nature. Ceremony held before breaking the ground indicates that the people requesting permission from the nature to spend their life in that certain spot of nature. Such a permit is understood as a statement that the people will temporarily shelter themselves in this certain spot of nature, and also will harmoniously live in and with nature. Even though this inner part is considered as a bubble of volume for certain function or use, they do not see it that way. As a norm in their relationships with guests and visitor, they should please guests and visitors. Then, any question to them will be answered in such a manner that the answer will please the guests and visitors. For example, if we ask whether the certain part of the building is a place to cook, the people will answer, yes, it is the place for cooking, no matter whether actually it is not for cooking. The presence of cooking utensils in that particular part does not automatically denote that the particular place is a place for cooking. It may only be a place for putting the utensils. Another question is whether the building a house or not, the people will say that is a house in order the questioner pleases. Our definition of house as building with rooms for doing all family activities is not conform to the structure with volumes inside. Also, a definition of a house as one structure with separated rooms, or as a place where one family live together, or spaces purposefully created to serve the life of a family, does not apply. To be sure, our concept of what is a house is not the one that the people of humid tropic understand and practice.

The geographical condition of Indonesia has located itself as a region with the water is far larger than its land; it is a maritime region. This condition directly pointed the climate to a particular one: it is a humid tropic region. Daily vaporization of sea water has only made the weather humid. This humidity made possible to spread far into the interior part of any island by the gusting wind. We must not also forget that the large percentage of greeneries in most islands also contributes to humidity. In dealing with this humidity, daily living was mostly performed in shaded area such as large overhang and platform. By enjoying this particular place of building, the breezing wind is expectedly help to reduce the feeling of warm and humid. However, since the wind does not reduce the level of humidity, people of humid tropic decide not to wear any clothing but their reproductive part of the body. Going naked is what their daily life is experienced. ⁽⁵⁾ During the night, going naked is still employed because the inner part of the building is damp, and when the sleeping is underway, nobody will not care of the comfort. Adult male who spend their night outside does not feel cold because they are already used to

it. In terms of building, the absence of vertical wall which may isolate the inside from outside is only applied to storage, especially the granaries. For the building as storage and place for sleeping at night, the introduction of wall is mostly of perforated wall.⁽⁶⁾ considering the wall is more an obstruction than a comforting element of building, the partitioning of inner part of building is not common. It is only after the introduction of religion (Islam and Christianity) that partitioning wall was introduced in this part of building. Of course, the transformation from going naked to wearing clothes on the one hand, and the use of inner part of building to perform daily activity (e.g. cooking) was also mostly due to that of religions. Another variant of wall is that of sun- and rain-blind. This element of building is mostly flexible, that is, can be rolled up to allow openness and rolled down to enjoy 'closed'-ness. This rain- and rain-blind is also functioned to tame the glare or heavy downpour of rain.

Dry season and wet season has enjoyed the humid tropic people. Living in this climate is like shading oneself under one big and shady tree. There is no need to separate or even isolate the place to live with nature surrounding the people; it is living in nature and with nature. This inseparation has made people difficult to understand what the space is. Rather, it is the place that the people care for. This where-ness in nature is more comprehensible to humid tropic people for the particular place is simply a spot in the nature. It is still common for today to describe the address by mentioning physical elements of the place and their surrounding than saying the postal address. "My house is where the two mangoes are, and the house is colored pale-yellow, just three minutes west of the *masjid*" is just an example to describe the address.

The building is not the only place for living in, it is rather the compound that deserved the label a house. The management of places within the compound is basically a management of time. During the daytime, living is under a shady place, and at night is in the inner part of the building. The shaded yard around the building is also part of the shady place to do activities such as cooking and weaving. Even a visitor is welcome and served in the shady place, not in the inner part of the building. The development where the inner part of the building is utilized as daytime activities has made the wall being perforated, so that the coziness and comfort is performed in this inner part of the building. This perforated wall is an expression of living in the shaded area of nature. Meanwhile, the daily life is still enjoying the upper part of the body left bare, and only in very special occasion that this body is wrapped with shirt, a loose shirt.⁽⁷⁾

The wind and greeneries are elements of nature integrated into the 'living under shaded place'. The breeze provides coziness. The Jawanese *pandhapa* should be the ultimate exemplar of such a building which provides no single wall; and the Kudus house represents the one with perforated wall. Big and tall trees are reserved for reducing glare and heavy downpour, and for allowing slow wind to blow the compound (the yard and the buildings). In case where such a tree is scarce, such as in savanna in Sumba, the soaring height of the roof is a substitution of those trees.⁽⁸⁾ The big trees are functioned as the provision of shaded areas, also as the controlling 'device' of wind. The function of greeneries is integrated within the comfort of the two season humid-tropic climate system. This integration covers from the single building up to the small cities of Indonesia/Nusantara. In small cities and towns, shaded trees are integral elements of the street, they are furniture of the street. The provision of tree in street will make the walking along the street enjoyable.

The aforementioned lengthy exposition of Nusantara architecture is directed mainly to build a contrast and oppositional nature of architecture of four season climate system. The location of architecture as a piece of nature transformed into a man-made structure strongly tell us that the humid tropic understand the harmony in and with nature in quite distinct (probably, even different) way as that of four season climate system. Those four season people may take the climate aside, and concentrate their effort to artificial climate. The hearth in the building should be the first product for this artificial climate. Completely isolated from the outside by its floor, wall and roof, this part of building becoming comfort by the hearth, was a bubble of volume that labeled space. The isolation of this volume from outside has intentionally let the people of the four seasons say that they create space. Basic ideals of creating space which promising better living through artificial climate seemingly what those people deal with their space for better living, even until the present time in those four seasons region. Note that the outside, the season and the climate of the region is simply taken aside (not to say: non-exist). The modern and contemporary issue in providing better life in the Western hemisphere (particularly Europe and North America) is more and more depending on the technology of artificial climate. It is even not an overestimation to say that climate has become industry, producing artificial-climate machines. Within this demand for providing better life, space is mainly understood as volumes to serve the need and purpose of man for comfort. It is becoming quite natural and rational to enjoy Buckminster Fuller's proposal

to bubble up Manhattan, no more severely cold or hot temperature, no more uncomfortable humidity, ideal and pleasing comfort for life becomes true.

The phenomenon of metropolis and big cities in Indonesia must be indistinctively alike the West in general. To deal with this phenomenon, schools of architecture in Indonesia trying hard to fill their curriculum with this four season issue, still beautifully concealed under the label of building science. So intense is this adaptation and adoption, then, this region of humid tropic climate also taken aside the outside, the nature that reward the people with such a friendly seasons. And it is quite an irony to the Indonesians, for the metropolis and big cities are only small part of Indonesia. The ever greater control of artificial climate upon people of metropolis and big cities has reached a degree that no single minute is experienced without the conditioned climate, Nevertheless, most commissions and 'grand design' projects are concentrated in that small part of Indonesia. The majority of Indonesia, its small cities and villages, its rural areas, are still enjoying the harmony of man-climate for better living. However, this enjoyable harmony is hardly understood by schools of architecture. The prevailing mindset of most school of architecture is grounded upon that of four season climate system. These schools see the creation of space is creating a bubble of volume with artificial climate to gain comfort and coziness. The nature outside this bubble is now only a matter of pleasing or dull panorama. Examples from this contemporary teaching in class and practices in the field has strongly suggested that machines for artificial climate is simply surpass the nature of humid-tropic climate, not the substitution of climate.

Once these schools is to deliver traditional or vernacular architecture of Indonesia, they will apply what the West view and understand this type of wooden architecture, a type that categorized by Sir Nikolaus Pevsner as bicycle shed, precisely as building, not architecture. Voluminous surveys and researches has been conducted by these Indonesian scholars, but mostly fall within this view, namely, a branch of culture study, not an architecture study. It is, then, quite understandable to find that these schools fail to capture development and change in what we still usually call traditional or vernacular architecture. In short, the teaching of architecture is incorrect, not to say a failure.

The clock remains ticking, While the ideals of having architecture that serves better living is always at hand, we are confronted with the question whose living: the wealthy few or every single people, the elite or the common and the elite people. To the four season

climate system, living with artificial climate is not incorrect; even the attitude of taking aside the climate is understandable. To the two season climate system, living with natural climate is also not incorrect; and the attitude of optimizing the natural climate is understandable. These two climate system is fundamentally different, and it must be a fatal mistake and fundamental incorrectness to deal with one as a variant of the other. The fact that our knowledge in two season climate system is very poor, that does not mean that this system be discarded.

The call for architecture for better living is demanding a definite respond: a denial (and ultimately, elimination) of two season climate system, or an equal, yet distinct, both two and four season climate system. The former is quite easy while the latter requires hard work. The former will make architecture in Indonesia serves the wealthy few, while the latter will serves the whole people of Indonesia.

Notes

(1) – The invention of umbrella and large headcover was simply employing the big and shady tree as its metaphor.

(2) – Koji Sato's study strongly suggests it through the rise of granaries as the source of house. See <http://www.sumai.org/asia/refer/sem9102.htm> dl. dec 30, 2011, on 21.20 wib

(3) – See Josef Prijotomo (2011): “Dua Bangun Pokok Arsitektur Nusantara: BINUBUH dan GINANDA”; paper presented at National Seminar Local Tripod, organized by Universitas Brawijaya, Malang, March 26, 2011

(4) – The word Nusantara is used here to change the label traditional or vernacular architecture of Indonesia

(5) – Going naked is not mostly because of humidity, but of tropicity. See the tropic region of Africa and South America, also people of Pacific

(6) – This perforated wall may take form as bamboo mat, wooden board, or crafted board

(7) – For example, if the body size is L, the size of the shirt is XL or even XXL. This is observed from Ratenggaro, Sumba in October 2011. Should a tight size is used (plus, wearing a tie), the room must unavoidably be conditioned, and that will consequently make the room separated or detached from nature outside.

(8) – Then, the buildings are more random in its placing within the compound. In Ratenggaro the roof peak reach 20 meters, even though it is directly faces Indian Ocean

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